

**Amendment to the Claims:**

This listing will replace all prior versions, and listings, of the Claims in this application.

**Listing of Claims:**

Claims 1-3 (Canceled)

4. (Currently amended) A composition comprising:  
at least one ~~live dihydrolipoic acid-producing~~ probiotic organism;  
R-lipoic acid; and  
at least one nutritive agent,  
~~the composition acting as a microbiological culture media and producing a~~  
~~harvestable quantity of naturally-derived dihydrolipoic acid; and therein~~  
an agent which halts probiotic activity.

5. (Currently amended) The composition of claim 4, wherein the at least one ~~live dihydrolipoic acid-producing~~ probiotic organism is selected from the group consisting of *Lactobacillus* species, *Bifidobacterium* species, *Enterococcus* species, *Streptococcus thermophilus*, and combinations thereof.

6. (Currently amended) The composition of claim 5, wherein the at least one ~~live dihydrolipoic acid-producing~~ probiotic organism is a *Lactobacillus* species selected from the group consisting of *L. acidophilus*, *L. paracasei*, *L. fermentum*, *L. rhamnosus*, *L. johnsonii*, *L. plantarum*, *L. reuteri*, *L. salivarius*, *L. brevis*, *L. bulgaricus*, *L. helveticus*, *L. grasseri*, *L. casei*, *L. lactis*, and combinations thereof.

7. (Currently amended) The composition of claim 5, wherein the at least one ~~live dihydrolipoic acid-producing~~ probiotic organism is a *Bifidobacterium* species selected from the group consisting of *B. bifidum*, *B. breve*, *B. infantis*, *B. longum*, *B. lactis*, and combinations thereof.

8. (Currently amended) The composition of claim 5, wherein the at least one ~~live dihydrolipoic acid-producing~~ probiotic organism is an *Enterococcus* species selected from the group consisting of *E. faecium*, *E. faecalis*, and combinations thereof.

9. (Previously presented) The composition of claim 5, wherein the at least one ~~live dihydrolipoic acid-producing~~ probiotic organism is *Streptococcus thermophilus*.

10. (Currently amended) The composition of claim 4, comprising at least one ~~live dihydrolipoic acid-producing~~ probiotic organism selected from the group consisting of *Lactobacillus* species and at least one probiotic organism selected from the group consisting of *Bifidobacterium* species.

11. (Previously presented) The composition of claim 4, wherein the nutritive agent is turmeric rhizome (*curcuma longa*).

12. (Currently amended) The composition of claim 4, wherein the composition comprises a microbiological culture media including:

about 40 composition weight percent of a paste, the paste including at least one ~~live dihydrolipoic acid-producing~~ probiotic organism;

about 20 composition weight percent R-lipoic acid; and

about 40 composition weight percent turmeric rhizome powder.

13. (Withdrawn – currently amended) A process for preparing a naturally-derived dihydrolipoic acid compound comprising:

dispersing the composition of Claim 12 [[4]] in water to form a broth  
incubating the broth at a predetermined temperature for a select time period to induce probiotic activity;  
adding ~~organic~~ ethanol to halt the probiotic activity; and  
harvesting the naturally-derived dihydrolipoic acid from the broth.

14. (Withdrawn) The process of claim 13, wherein the broth is incubated at a temperature of about 35°C to about 40°C.

15. (Withdrawn) The process of claim 13, wherein the broth is incubated for a period of about 72 to about 168 hours.

16. (Withdrawn – currently amended) A process for naturally deriving a beneficial compound comprising:

dispersing the composition of Claim 12 [[4]] in water to form a broth;  
incubating the broth to initiate probiotic activity;  
harvesting a waste byproduct of the probiotic activity; and  
separating the beneficial compound from the waste byproduct.

17. (Withdrawn) The process of claim 16, wherein the beneficial compound is dihydrolipoic acid.

18. (Withdrawn – currently amended) The process of claim 16, wherein the at least one live dihydrolipoic acid-producing probiotic organism is selected from the group consisting of *Lactobacillus* species, *Bifidobacterium* species, *Enterococcus* species, *Streptococcus thermophilus*, and combinations thereof.

19. (Withdrawn) The process of claim 16, wherein the nutritive agent is turmeric rhizome (*curcuma longa*).

20. (Currently amended) The composition of Claim 4, wherein the composition is naturally-derived dihydrolipoic acid compound harvested therefrom is used in a medicament or nutritional supplement.

21. (Currently amended) A composition comprising:

*Bifobacterium longum*;

*Lactobacillus acidophilus*;

*Enterococcus faecium*;

*Streptococcus thermophilus*;

R-lipoic acid; and

at least one nutritive agent; and

the composition acting as a microbiological culture media and producing a harvestable quantity of naturally-derived dihydrolipoic acid therein.

22. (Previously presented) The composition of Claim 21, further comprising *B. breve*, *B. infantis*, *L. bulgaricus*, *L. casei*, *L. fermentum*, *L. helveticus* and *L. plantarum*.

23. (Canceled)

24. (Currently amended) A broth, consisting essentially of:  
at least one live dihydrolipoic acid-producing probiotic organism selected from the group consisting of *Lactobacillus* species, *Bifidobacterium* species, *Enterococcus* species, *Streptococcus thermophilus*, and combinations thereof;

R-lipoic acid;

an aqueous medium water; and

turmeric turmeric rhizome (*curcuma longa*) as a nutritive agent;

the broth acting as a microbiological culture media producing a ~~harvetable~~  
~~quantity of~~ naturally-derived dihydrolipoic acid therein.

25. (New) The composition of Claim 4, wherein the naturally-derived dihydrolipoic acid is produced in situ from the R-lipoic acid.

26. (New) The composition of Claim 4, wherein the agent which halts probiotic activity comprises ethanol.

27. (New) A composition comprising:  
at least one dihydrolipoic acid-producing probiotic organism;  
R-lipoic acid;  
at least one nutritive agent; and  
naturally-derived dihydrolipoic acid.

28. (New) The composition of Claim 27, wherein the at least one nutritive agent comprises turmeric rhizome (*Curcuma longa*).

29. (New) The composition of Claim 27, wherein the naturally-derived dihydrolipoic acid is prepared in situ in the composition by incubating a microbiological culture media comprising:

the at least one dihydrolipoic acid-producing probiotic organism;

the R-lipoic acid; and

the at least one nutritive agent composition to produce the naturally-derived dihydrolipoic acid in the composition prior to addition of the agent which halts probiotic activity.

30. (New) The composition of claim 27, wherein the at least one dihydrolipoic acid-producing probiotic organism is selected from the group consisting of *Lactobacillus* species, *Bifidobacterium* species, *Enterococcus* species, *Streptococcus thermophilus*, and combinations thereof.

31. (New) The composition of claim 30, wherein the at least one dihydrolipoic acid-producing probiotic organism is a *Lactobacillus* species selected from the group consisting of *L. acidophilus*, *L. paracasei*, *L. fermentum*, *L. rhamnosus*, *L. johnsonii*, *L. plantarum*, *L. reuteri*, *L. salivarius*, *L. brevis*, *L. bulgaricus*, *L. helveticus*, *L. grasseri*, *L. casei*, *L. lactis*, and combinations thereof.

32. (New) The composition of claim 30, wherein the at least one dihydrolipoic acid-producing probiotic organism is a *Bifidobacterium* species selected from the group consisting of *B. bifidum*, *B. breve*, *B. infantis*, *B. longum*, *B. lactis*, and combinations thereof.

33. (New) The composition of claim 30, wherein the at least one dihydrolipoic acid-producing probiotic organism is an *Enterococcus* species selected from the group consisting of *E. faecium*, *E. faecalis*, and combinations thereof.

34. (New) The composition of claim 30, wherein the at least one dihydrolipoic acid-producing probiotic organism is *Streptococcus thermophilus*.

35. (New) The composition of claim 27, comprising at least one dihydrolipoic acid-producing probiotic organism selected from the group consisting of *Lactobacillus* species and at least one probiotic organism selected from the group consisting of *Bifidobacterium* species.

36. (New) A microbiological culture media for producing a naturally-derived dihydrolipoic acid compounds, the microbiological culture media comprising:

at least one live dihydrolipoic acid-producing probiotic organism;

R-lipoic acid; and

at least one nutritive agent,

wherein said at least one nutritive agent comprises turmeric rhizome (*curcuma longa*), and wherein said turmeric rhizome comprises at least 50% by weigh of the total weight of nutritive agents present in the microbiological culture media.

37. (New) The microbiological culture media of Claim 36, wherein said turmeric rhizome further comprises at least about 80% by weight of the total weight of nutritive agents present in the microbiological culture media.

38. (New) The microbiological culture media of Claim 36, wherein said at least one nutritive agent consists essentially of turmeric rhizome.